

Product datasheet for **RC203472**

PMM2 (NM_000303) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: PMM2 (NM_000303) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: PMM2
Synonyms: CDG1; CDG1a; CDGS; PMI; PMI1; PMM 2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203472 representing NM_000303
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCGCCTGGCCAGCGCTCTGCCTCTTCGACGTGGATGGGACCCTCACCGCCCCGCGCAGAAAA
TTACCAAAGAAATGGATGACTTCCTACAAAAATTGAGGCAGAAGATCAAATCGGAGTGGTAGGCGGATC
GGACTTTGAGAAAGTGCAGGAGCAACTGGGAAATGATGTGGTTGAAAAATACGATTATGTGTTCCAGAA
AATGGCTTGGTAGCATACAAAGATGGGAACTCTGTGTAGACAGAATATCAAAGTCATCTGGGTGAGG
CCCTAATCCAAGATTTAATCAACTACTGTCTGAGCTACATTGCGAAAATTAAGTCCCGAAGAAGAGGGG
TACTTTTATTGAATTCGAAATGGGATGTTAAAGTGTCCCTATTGGAAGAAGCTGCAGCCAAGAAGAA
CGCATTGAGTTCTACGAACTCGATAAAAAAGAAAATATAAGACAAAAGTTTGTAGCAGATCTACGGAAAG
AGTTTGCTGGAAAAGGCCTCACGTTTTCCATAGGAGGCCAGATCAGCTTTGATGTCTTCTGATGGATG
GGACAAGAGATACTGTCTGCGACATGTGGAAAATGACGGTTATAAGACCATTTATTTCTTTGGAGACAAA
ACTATGCCAGGTGGCAATGACCATGAGATCTTCACAGACCCCGAACCATGGGCTACTCCGTGACAGCGC
CTGAGGACACGCGCAGGATCTGTGAAGTCTGTTCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203472 representing NM_000303
 Red=Cloning site Green=Tags(s)

MAAPGPALCLFDVDGTLTAPRQKITKEMDDFLQKLRQKIKIGVVGSDFEKVQEQLGNDVVEKYDYVFPE
 NGLVAYKDGKLLCRQNIQSHLGEALIQDLINYLCLSYIAKIKLPPKRGTFIEFRNGMLNVSPIGRSCSQEE
 RIEFYELDKKENIRQKFVADLRKEFAGKGLTFSIGGQISFDVFPDGDWKRYCLRHVENDGYKTIYFFGDK
 TMPGGNDHEIFTDPRTMGYSVTAPEDTRRICELLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

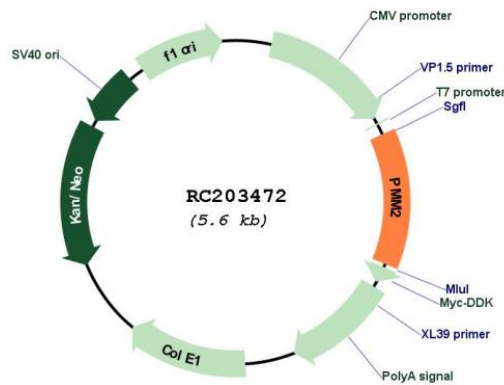
Chromatograms: https://cdn.origene.com/chromatograms/mg3231_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



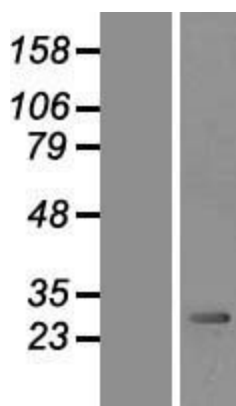
Plasmid Map:



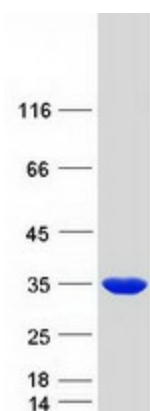
ACCN: NM_000303

ORF Size: 738 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_000303.3
RefSeq Size:	2302 bp
RefSeq ORF:	741 bp
Locus ID:	5373
UniProt ID:	O15305
Cytogenetics:	16p13.2
Domains:	PMM
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Fructose and mannose metabolism, Metabolic pathways
MW:	27.9 kDa
Gene Summary:	The protein encoded by this gene catalyzes the isomerization of mannose 6-phosphate to mannose 1-phosphate, which is a precursor to GDP-mannose necessary for the synthesis of dolichol-P-oligosaccharides. Mutations in this gene have been shown to cause defects in glycoprotein biosynthesis, which manifests as carbohydrate-deficient glycoprotein syndrome type I. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY424809]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203472 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PMM2 protein (Cat# [TP303472]). The protein was produced from HEK293T cells transfected with PMM2 cDNA clone (Cat# RC203472) using MegaTran 2.0 (Cat# [TT210002]).